

**My Inner Animal: Drawing Animal Imagery and the Effect on Self-Esteem levels in
College Students**

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Submitted in partial completion of the requirements for the degree of

Master of Arts in Art Therapy and Counseling (MAATC)

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Institutional Review Board (IRB)

Albertus Magnus College

DATE: March 3, 2023

Re: IRB# 20230303-NI

Dear Nicholas,

This letter serves as an official approval by the Albertus Magnus College IRB for you to conduct the study on “animal drawing and self-esteem” as described in the IRB application submitted on 2/28/23. Please ensure that the confidentiality of your research participants is properly protected and that you remain within the boundaries you stated in the IRB application. If those boundaries change in relation to the study participants, please notify the IRB as an amendment may be necessary

Your study is authorized to begin as of the date of this approval letter and is valid for one year, ending on March 3rd, 2024.

If you have any questions, please contact Dr. Joshua Abreu, the IRB Administrator, by e-mail at jabreu1@albertus.edu.

Sincerely,

Joshua Abreu, Ph.D.

IRB Administrator

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Abstract

This pilot study aimed to investigate self-esteem levels in college students with the focus on increasing self-esteem in this population. This study investigated the potential impact self-portrait animal imagery had on increasing college student self-esteem and the adjacent changes in state anxiety levels when compared to the creation of conventional self-portraiture. The college student sample ($N = 10$) was randomly assigned to two art-making groups; one completing animal self-portraits ($n = 5$) and the other completing traditional self-portraits ($n = 5$). Both were given an anxiety inventory and self-esteem scale, pre-and post-art making. Results showed no statistical significance in increased self-esteem levels of the experimental group and the decrease in state anxiety levels of the control group.

Keywords: animal imagery, art therapy, self-esteem, self-image, anxiety, personal metaphor

My Inner Animal: Drawing Animal Imagery and the Effect on Self-Esteem levels in College Students

College is a pivotal stage in the development of one's self-esteem and identity. The interpersonal changes and increased responsibilities faced in college enhance and define many facets of young adult character, including self-esteem. The present pilot study explored ways to support self-esteem development in college students while measuring anxiety levels associated with the creation of self-representational art-making. Increased levels of self-esteem in college students have shown to be a reliable predictor of higher adult self-esteem, better long-term goal setting behavior, better physical health, and less depressive symptoms as an adult (Arsandaux et al., 2020, p.108). For the intent of this study, *self-esteem (SE)* can be defined as “an integrated estimated opinion of one's self-informed by a multiplicity of inside and outside stimuli” (Arsandaux et al., 2020).

Research has shown various ways to increase self-esteem including performative arts (Bagienski & Kuhn, 2022), participation in sports (Ouyang et al., 2020), and the use of meridian exercises (Kim et al., 2004). However, one of the most unique methods for increasing SE is the process of creating art (Bagienski & Kuhn, 2022). Building on current research, it is possible that utilizing art therapy interventions could effectively increase self-esteem in college student populations. Therefore, this study will measure changes in SE in college students asked to draw themselves as animals versus those who draw a conventional self-portrait.

Animal Imagery in Society

In a recent publication, Hoffmann et al. (2021) revealed that the earliest recorded cave images recently unearthed were completed by Neanderthals nearly 40,800 years ago. Prior to these groundbreaking discoveries, however, Neanderthals were thought to lack the capacity for

creative visual expression (Hoffmann et al., 2021). Instead, the authors discussed that Neanderthal imagery was previously believed to be understood as singular objects or patterns of markings, simple in design, and clustered on inner cave walls. However simple in nature, these original markings are now understood to be the beginnings of visual symbolic behavior.

Later, around 30,000 BC the primitive yet expressive Cro Magnon man began to create markings readily recognizable by modern peoples (Bloomgarden, 1998). These images often used lines and form to depict hunts, humanoid figures, and rituals. However, one of the most notable themes observed in these early artworks was that of animal imagery which was often located deep in the cave, far from the cave mouths where primitive man sought refuge (Bloomgarden, 1998). According to Bloomgarden (1998), this suggested these paintings held an intrinsic sacred nature to the people who created them. Dissanayake (1992) indicated that art was the vehicle that channeled and contained the concepts most important to early man. In addition, these images were utilized as a form of community building and a method of catalyzing a cooperative environment to ensure the survival of the individual and group (Bloomgarden, 1998).

Over time, animal imagery seemed to become a strong bond that connected humankind withAccording to Jung's seminal work in 1964 (as cited in Jung et al., 2013), the ancient Greeks coined the phrase "inner Daimon," or inner center, describing a protective entity that takes the form of an animal. These authors further identified ancient civilizations such as the Egyptian (Ba-Soul) and Roman (Genius) who held similar human-animal concepts. In particular, the North Pacific indigenous culture practiced a ritual of transition to young adulthood by which the village youth set out on a solitary journey to a revered place within nature where they would discover

their guardian spirit and take that animal back into the community as a form of guidance and identity (Jung et al., 2013, p. 129).

Human identification with animals can also be evidenced in modern literature. Case (2005) discussed the projection of personal metaphor on animal symbols found in fantasy novel series like *Harry Potter* and the *Northern Lights trilogy*. Similarly, the concept of humans transforming into animal form (or shapeshifting) is found in the popular film *The Sword and the Stone* (1963). In this narrative, the main character is taught humility, empathy, and other defining personal characteristics from a figure embodied in an animal form.

In addition, modern culture around self-identity includes individuals who define themselves as *otherkin*, *furries*, and *fursona*. The sacredness of animals are held by these individuals in identities that are partially or completely non-human or having a combined human-animal identity. Kirby (2012) defined *therianthropes* (an identity presenting part human, part animal) as “extraterrestrial fae’ (otherworldly magical beings) which include mythical creatures with similar features such as elves, lycanthropes, and vampires, which often have animal-like characteristics and behaviors. Conversely, individuals also adopt an animal identity with varying degrees of anthropomorphic representation. Some common furry identities include canines, felines, dragons, and sometimes hybrids of two animals like a cabbit (cat/rabbit). For some individuals in the furry fandom, the physical manifestation of an animal identity via costuming (in fur suits) enables access to deeper social connection with others and often allows exploration of repressed or censored personality traits (Gerbasi et al., 2008).

Through animal shapeshifting, adopting fursonas or otherkin identities, humans could be experiencing what is described in psychoanalytic theory as *intrusive identification* whereby an object (in this case, an animal identity/form) is invasively taken over with the intent of escape

from or containment of conflictual feelings (Meltzer, 2000). From this perspective, the concept of human identity self-projected onto aspects of animal identity could be seen as a means of coping with intrapsychic conflict. Resolution of intrapsychic conflict informs the development and, ultimately, the individuation of the self, which may contribute to increased levels of SE (Orth & Robbins, 2019).

Animal Imagery in Art Therapy Theory and Research

The evolution of the practice of art therapy also draws from a rich history and the importance of animal imagery in the human experience, tapping into the innate connection humans and nature share. Carl Jung (1964) an influential psychological theorist and major contributor to the theoretical constructs of art therapy, wrote of the "bush soul" each human possesses (p.237). Jung suggested that a component of the unconscious was in resonance with our ancestral connection to nature and yearning to return to our true hunter/gatherer selves. These desires manifest in the content of our dreams and, through what Jung described as the process of *individuation*, become integrated into facets of personality. Jung further noted that animal imagery, in this way, is the manifestation of our instinctual nature risen to the conscious level.

While there is a dearth of research on the topic of animal imagery and personality development, Jung's (1964) concepts of man's instinctual animal nature can be evidenced in recent research. A study conducted by Sommer and Sommer (2011) with a sample of 51 participants who were University students using a survey examining relationships between personal metaphors and animal imagery. Using 36 familiar animal species, participants were asked to identify human characteristic associations in response to the prompt "if you heard a person described as a (animal name)?" (p. 239). The findings showed that the participants favored

larger mammals as symbolic of older persons while adults were often coded as foxes, lions, tigers, and coyotes. In contrast, a monkey was most commonly represented as a teenager. Participants also indicated binary gender associations with certain animals. For example, there were mostly masculine associations for all animals except for the deer and cat which were most often characterized as feminine. Seventeen species were found to have general negative associations to human representation that included ape, ass, coyote, dog, donkey, gorilla, mole, monkey, pig, rabbit, rat, sheep, skunk, snake, squirrel, weasel, and wolf (Sommer & Sommer, 2011, p. 239). This qualitative research provided a compelling framework on which to build an experimental study which could provide an opportunity to better understand the relationship between personal metaphor and animal imagery.

College Students

During college, many changes and considerations to identity are set into motion for a developing young adult. The comfort, safety, and routine of high school, along with the established social connections of youth are often disrupted. The sudden and radical change in environment and social constructs encourage new patterns of awareness in college students. Patton et al. (2016) regarded the development of college student identity as a culmination of several factors. The awareness of racial differences among peers, ethnic and cultural identity, the malleability of sexual and gender identities, disability identity, spiritual/faith, and the acknowledgment of social class relations (p. 66-68). With the emergence of sensitivity to such concepts, it is apparent that being in college is a significant period of development providing simultaneous academic growth and gains in self-awareness through the lens of identity formation.

During the ages of 18-23 (the chronological age of those typically enrolled in college), identity development can be further examined through Erikson's (1994) fifth stage of psychosocial development (identity versus role confusion). The fifth stage identifies an adolescent or young adult as being vulnerable to external formative factors such as societal expectations, peer pressure, familial influence, and personal biases. As part of this stage, identity formation begins with the manifestation of *ego identity* when the adolescent borrows ideals and values from admired individuals. At this time, personal and moral beliefs organize into a baseline schema that will become foundational to the individual's long-term identity (Mclean & Syed, 2016).

Two additional elements of identity formation are also included in Erikson's (1994) fifth stage of psychosocial development. *Free will* includes rebellious energy that causes *physical* urges to act and think of their own volition despite what is advised by others and societal norms. Whereas *social identity* is one's orientation and perception within their world and within greater society incorporating the influences of culture, ethnic background, gender binary presentation, and country of origin (p. 109). Successful resolution of Erikson's (1994) identity vs. role confusion stage results in a healthy personal identity formation as exploration of roles is exercised simultaneously as goals and beliefs are crystalized. When all aspects of identity formation are well-developed, the young adult achieves *identity synthesis*, described as when the childhood-bound self-identifications merge and negotiate into a working sense of self informed by environmental factors such as gender roles and the community (Erikson, 1994, p. 153).

Self-Esteem

Self-esteem is a complex construct and may be influenced by other outside factors commonly afflicting college students, such as family stress, academic pressure, or interpersonal

difficulties. Orth and Robins (2019) described self-esteem as a compounded experience beginning in early childhood whereby both interpersonal experiences and one's growing sense of self become internalized. Self-esteem is not a fixed personality trait, but has the capacity to fluctuate over time and within developmental phases to influence overall human function and identity formation (Orth & Robins, 2019).

In a meta-analysis of 331 individual American studies, which consisted of 164,868 total participants, results showed that self-esteem (SE) changed notably and predictively over a participant's lifetime. Overall, the collective data supported previous research that established SE levels were reflective of prior averages at ages 4-11, began to stabilize and show little change from 11-15, then began a notable upward trajectory through one's twenties peaking at 30 years of age (Orth et al., 2018). In contrast, Arsandaux et al. (2020) found that SE levels were indicated to rise during adolescence and decrease moving into young adulthood in French students. The inconsistencies in the two results could be explained by differences in cultural influences as well as demographical factors. However, it is also reflective of the need for further research into college age populations and self-esteem formation. More recently, Wrzus et al. (2022) found that college students (age 18-28) experienced personality formation and personality crystallization in an alternative way from older adults (average age of 67 years). When both age groups were exposed to a similar college life experience, the findings suggested the impact of developmental stage on self-esteem development was intertwined and may share a co-dependent relationship to one another. Such significant differences in research outcomes make for a compelling opportunity for further investigation.

Supporting healthy levels of self-esteem appear to provide a holistic foundation for overall physical and mental health. For example, research suggests a correlation between low

self-esteem in college students with higher rates of depression, cyberbullying perpetrating, and elevated rates of loneliness (Varghese & Pistole, 2017). College students with low SE scores were also shown to take a less proactive role in preventive medical care and shared low body satisfaction overall (Thomas & Warren-Findlow, 2019). Self-esteem levels were also a reliable predictor of long-term goal behavior and overall life satisfaction of college students into young adulthood (Coffey & Warren, 2020). Given the significant task of identity formation in adolescents and young adults, research on the impact of self-esteem on overall development in the age group is essential.

A thorough review of the literature revealed little to no quantified research in the combined areas of animal imagery, art-making, and self-esteem in college students. Although recent research has addressed correlations between college students' self-esteem and long-term health and satisfaction levels (Thomas & Warren-Findlow, 2019), there are identifiable gaps regarding the effect of college students' underdeveloped self-esteem levels and their expressive process in identity art-making. Further research is warranted to understand the interaction between college students and SE levels. Therefore, the present study aimed to fill the existing research gap by exploring the impact of art making with animal imagery on college student's state self-esteem levels.

Method

Participants

Undergraduate students ($N = 10$) between the ages of 18 to 25 were recruited to take part in this study. Efforts were made to recruit diverse students. All participants were recruited through word of mouth as well as physical and digital flyers posted on social media and around a

small, Catholic New England campus. Participants were then randomly assigned evenly into two different art-making conditions.

Instruments

State Self-Esteem Scale (SSES)

The State Self-Esteem Scale (1991) is a self-report measure evaluating state self-esteem levels adapted from items in the Janis-Field Feelings of Inadequacy Scale. It consists of twenty items scored on a 5-point Likert type scale. The scale's items probe for self-esteem in three areas: performance, social, and appearance. Heatherton & Polivy (1991) found, using a sample size of (n=102) undergraduate volunteers, the Cronbach's alpha of the scale to be .92, indicating great internal consistency.

Spielberger State-Trait Anxiety Inventory (STAI)

The Spielberger State-Trait Anxiety Inventory (STAI) (1992) is a six-item shortened form of the full forty-item STAI. Questions on the shortened STAI are combinations of the highest correlated questions indicating present-anxiety and absent-anxiety rated on a 4-point Likert scale (Marteau & Bekker, 1992). Marteau et al (1992) found, using a sample size of (n=406) consisting of 223 pregnant women (23 surveyed by mail), 38 medical students, and 45 student nurses that the Cronbach's alpha of the six-item scale was .82, indicating strong internal consistency. State anxiety levels of the two art-making groups will be cross examined using the STAI in order to provide additional information in support of animal art making as a less activating intervention. For the purposes of this study only the first form (Y-1) consisting of twenty items measuring state anxiety levels was administered based on the STAI manual (Marteau & Bekker, 1992).

Materials

All participants received a 12-pack of Steadler™ colored pencils and a sheet of 9" x 12" (22.86 x 30.48 cm) Strathmore™ drawing paper. These materials were selected for their ease of use, availability, and familiarity.

Procedure

Subjects were recruited to volunteer to be a part of this study through convenience and snowball sampling. Participants who fit the criteria were randomly assigned evenly into two conditions: one being an animal art directive condition ($n = 5$) and another being a conventional self-portrait art directive condition (limited to head and shoulders only) ($n = 5$). Participant's sessions were completed in both individual and small group formats where they were asked to read and sign a consent and art release form and complete a short demographics questionnaire. Each participant was then administered the SSES and STAI to establish an average anxiety and self-esteem level pre-art making.

Participants were then provided with a 12-pack of Steadler™ colored pencils and a sheet of 9" x 12" (22.86 x 30.48 cm) Strathmore™ drawing paper. In the animal art-making directive condition, participants were prompted with the following statement: "If you could see yourself as an animal form, what would you be? Please draw that image. This is not a test of artistic ability, but please do your best." Conversely, in the traditional self-portrait art-directive condition, participants were offered with the following statement prompt: "Please draw yourself, to the best of your ability, and limit your image to only your head and shoulders. Remember this is not a test of artistic ability." Both conditions were given a minimum of 10 minutes and a maximum of 30 minutes to complete their piece. Once the art-making was finished, those who consented to the art-release form handed in their artwork, and then completed the SSES and STAI again. This was followed by a debriefing form and statement. Data collected was coded by number per

participant for de-identification then signed forms and completed artwork were stored in separate locations. In addition, any digital data was stored separately on an encrypted USB drive.

Data Analytics .

STAI scores were analyzed using both independent t-tests and paired t-tests for correlated groups examining any changes in state anxiety levels pre to post intervention. The SSES scores were analyzed using paired t-tests for correlated groups and were performed to determine if significant change occurred for each condition (animal image art-making and traditional self-portrait art-making) on college students' self-esteem levels. Additionally, independent t-tests were conducted on the change in college student self-esteem levels to determine if there was a significant difference between conditions. All tests used a significance level of .05. Descriptive statistics summarize the sample's demographics and report the distribution of scores on self-esteem levels.

Results

There was no significant difference between the change in SSES scores, $t(8) = -26$, $p = .805$, between the experimental animal image group 1 ($M = 70.8$, $SD = 15.67$) and control self-portrait group ($M = 67.4$, $SD = 25.27$). Additionally, there were no significant differences between the change in STAI scores, $t(8) = 1.12$, $p = .295$, between the experimental animal image group 2 ($M = 34$, $SD = 15.62$) and control self-portrait group 1 ($M = 44.20$, $SD = 19.20$). The results from the pre-test ($M = 64.6$, $SD = 18.28$) and post-test ($M = 67.4$, $SD = 25.27$) SSES indicate that the animal drawing intervention provided a slight non-statistically significant increase in self-esteem, $t(4) = -0.47$, $p = 0.665$. The results from the pre-test ($M=34$, $SD=15.62$) and post-test ($M= 31.4$, $SD= 16.83$) STAI showed a non-statistically significant reduction in anxiety in the self-portrait control group.

Discussion

This pilot study was conducted to investigate if animal self-portrait drawing provides a higher level of self-esteem to college students than the creation of traditional self-portraits. It was predicted that drawing oneself as an animal would result in a higher level of self-esteem after completing the art activity than those who created self-portrait imagery. Due to the small number of participants, no statistically significant differences in either group or between groups were measurable within the data. However, an increase in self-esteem in the animal drawing group (experimental) and, conversely, a decrease in anxiety levels in those in the self-portrait group (control) are notable.

The above findings are consistent with previous research in which Bagienski & Kuhn (2022) found that individuals who engaged in expressive arts had higher levels of self-esteem. Furthermore, the chosen animal imagery created by some female participants in this study is reminiscent of findings in Sommer & Sommer's (2011) qualitative research linking female animal representation with complementary associations. Notably, the images created for this pilot study do not seem to include any represented species previously correlated with negative metaphorical connotations or low self-image in earlier literature. For example, one participant's image was identified as "a leopard," which parallels Sommer and Sommer's (2011) study in which adults were commonly projected as large cats. The positive change in this college student also mirrors findings in self-esteem levels in results reported by Orth et al. (2018), where, during this phase of development, individuals tend to plateau or acquire gains in self-esteem into their early 30s.

Out of the expected 30 participants, only 10 completed the study. The youngest participant in the study was 18 years old, while the oldest was 24 years of age. Gender across the

participant sample was comprised of 60% female, 20% non-binary, 10% gender-fluid, and 10% male. Although age and gender identity varied, the demographic breakdown resulted in a sample of 70% white, followed by Hispanic/Latin/ax, Black, and Biracial at 10% each.

An informal review of the artwork was undertaken to better understand the increase in self-esteem as seen in the experimental group's data and the unexpected decrease in anxiety levels in those in the control group. Overall, the artwork in the control group shared common artistic elements such as the construction of forms, ungrounded compositions, a more restricted color palette, emphasis on eye forms, and anxious line quality. It is suggested that the decrease in anxiety indicated in the STAI post-test of the control group may be reflected in these formal qualities used to complete the self-portraits. One example is the use of repetitive lines, which may have provided kinesthetic movement that aided in releasing performance anxiety (Feen-Calligan et al. (2020). Additionally, after completing the self-portrait task, participants may have deemed their representational image satisfactory, leading to a sense of relief which may have also lowered anxiety scores for most. The familiarity of drawing a person's shape vs. an animal image may have further played a key role in one's confidence in execution and satisfaction with the final product. Equally important is the possibility that participants may have experienced emotional catharsis, as suggested by the intensity of pressure using materials and bold color choices. The ability to control, censor and create any perception of oneself on paper can allow one to emphasize strengths and minimize or practice erasing perceived flaws. Participants editing images in this way draw a parallel between their projected identity contained within the art piece and Erickson's (1994) concept of social identity when external pressures are applied to the individual to present a specific way.

A relevant example of experienced catharsis can be seen in Figure 8, one of the most colorful samples collected as it included heavy saturation of red and large, expressive eyes. This image included a total of six colors which were applied to the paper using heavy pressure. In addition, repeating line patterns in the figure's shirt and hair may have provided a meditative quality or "flow" state (Csikszentmihalyi, 1990) often found within the creative process. Before drawing, this individual remarked about being "nervous" and had "not done art for a long time." However, after completing the image, a sense of satisfaction was shared with the participant stating it "wasn't bad at all." The sense of relief implied by the participant's statement bolsters the idea of an acute anxiety reduction that may have been related to concerns such as a perceived inability to accurately represent the self visually or possible fears of judgment from the researcher. Coinciding, the emotional cathartic content contained within the image could be identified as the thickening of the lips and heavy saturation of color in the red used, the creation of large eyes, and the inclusion of adornments (figure's earrings). These qualities within the piece can speak to the sublimated emotionality experienced by the participant to convince the viewer and artist of the subject's attractiveness and sense of self, potentially lowering anxiety levels.

Several participants in this group drew themselves with adornments (such as earrings), stylized characteristics such as long eyelashes or lip color, and idiosyncratic colors or no color to portray skin tone. Figure 10 also includes a tapering torso that narrows from shoulders to chest, implying a heavily feminized hourglass shape. These stylistic choices may be the participant's way of expressing free will (Erikson, 1994) by modifying facets of outward appearances to contain anxieties and create a sense of desirability to themselves and the viewer.

The artwork created by participants in the experimental group also incorporated stylized lines such as exaggerated forms and modification of details in the images. However, compared to

the control group, the animal images show a higher utilization of page space, image integration, and a significant level of detail. Along with these indicators, the inclusion of environments and animal choice may be significant reasons for the increase in self-esteem scores indicated in the SSES post-test in this group. The colors utilized by the experimental group overall seem to reflect a sense of deep emotional resonance in saturation and selection of color. For example, Figure 9 possesses both indicators listed above. According to research conducted by Wilms and Oberfeld (2017), pigmented chromatic colors such as the red, orange, green, and yellow in Figure 9 elicit stronger emotional arousal than more subdued achromatic choices. Each of the animals drawn also seem to suggest a personal metaphor and sense of self or projections of positive personal identity reminiscent of Erikson's (1994) social identity. These combined indicators may have influenced the increase in self-esteem experienced by this group.

For example, Figure 1 has an image of a mermaid or siren who appears wounded, perhaps due to being caught in a fishnet. A hybrid form (human and fantasy creature) may have been chosen as a personal narrative or may, instead, directly represent the participant's perspectives on pollution and its environmental impact. Either way, this important projection of individuality and uniqueness expresses a wide range of emotional responses in the viewer. In this way, self-esteem could be maintained or increased through genuine expression and the manifestation of the inner world.

Where no background was drawn in any of the self-portraits, four of the five participants in the experimental group created some form of background for their animal to live in. For example, figure 6 includes a large elephant behind a fence. In the background, three other smaller elephants are drawn. On the elephant's back sit two forms, speculated to be birds or some other animal. On the opposite side of the fence stands a human figure with a distressed

expression. Overall, the detail and relationship in the image suggest a storyline. On average, participants took longer to complete the animal drawing than those completing the portraits. This could be why the experimental group was able to construct more thorough and detailed imagery compared to the control group. This may also be a specific reason for the increased levels of self-esteem seen in the data.

In addition, personal metaphor seemed to encapsulate the animal imagery of the experimental group. The most pertinent example is Figure 7, which depicts a turtle on a beach facing the water. Turtles sometimes suggest protection, withdrawal, a solitary lifestyle, slow but constant pacing, or perseverance. The metaphor of a turtle holding its home on its back creates an exciting duality and may suggest that this individual holds a sense of identity and self-esteem from within. In contrast, the previous image of the elephant was drawn with other elephants and a person suggesting a more community-based sense of self.

The results gathered from present pilot study further support research in art-making as an intervention for acute anxiety states. Moreover, it may catalyze future use of self-portrait animal imagery for art therapists to garner clinical information about their college-age clients' self-esteem, identity, and perceived social framework.

The most relevant limitation of the current study is the small sample size. Initially, 30 participants were sought, but only ten completed the procedures. A larger sample of participants may have created statistically significant changes in the anxiety reduction in the control group alongside the self-esteem increase noted in the experimental group. A more diverse sample would also provide more generalizable results and introduce a wider gamut of animal identities. Likewise, participants were sampled from one small private college in New England. Subsequent studies would benefit from a more expansive inclusion of multiple institutions or casting a wider

geographical net. Another limitation could have been the choice of materials. While colored pencils are affordable, readily available, and approachable to most skill levels, they limit the emotional content and fluidity of other materials like watercolor or oil pastels. In future research, offering various materials may be advantageous, including more fluid options to access additional emotional content and sidestep intellectual defenses. Similarly, paper size using a 9" x 12" (22.86 x 30.48 cm) piece of drawing paper may have been confining in experience, not allowing for the full benefits of kinesthetic release during the creative process. If replicated, the study could gain from using a larger paper to accompany the looser materials offered.

Despite this study's small sample size and lack of statistical significance, it lays the foundation for further investigation in self-esteem and animal-based projective drawing. This study sought to investigate the effect animal self-portraits had on the self-esteem levels of college students when compared to traditional self-portraits. The data indicates that the animal condition provided an insignificant increase in self-esteem levels. At the same time, the portrait condition offered those participants an insignificant reduction in anxiety levels. As noted, the intersectionality of college students, animal drawings, and self-esteem is a blind spot in art therapy research, but this study's results support further examination.

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[brLm&sig=7m5s1vylBut244hMRRS5KxyaOI4#v=onepage&q=the%20handbook%20of%20personality%20development%20mcadams&f=false](https://doi.org/10.3389/fpsyg.2019.03039)

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Figure 1

Note. A mermaid/siren drawn by a 20-year-old Caucasian female.

Figure 2



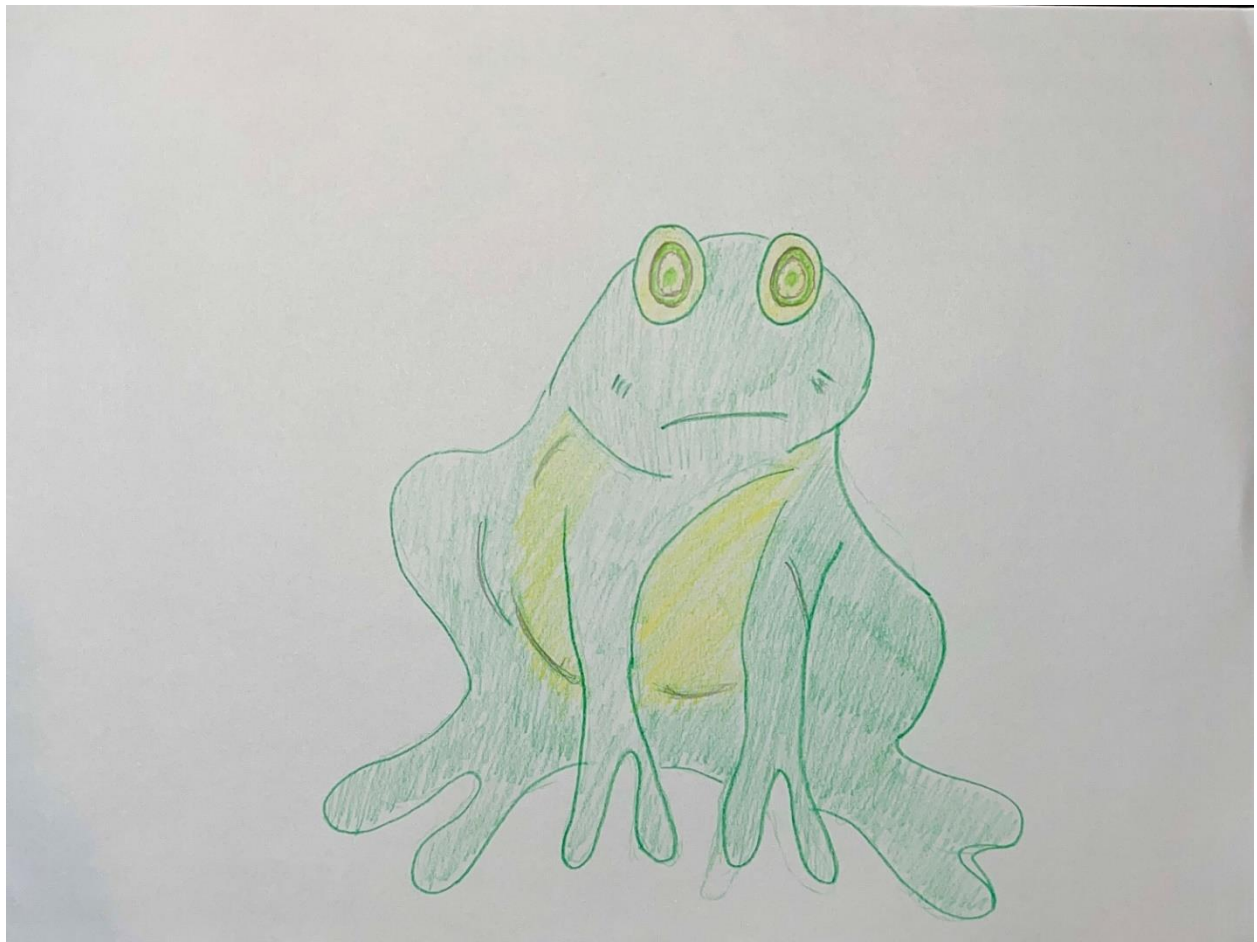
Note. A self-portrait drawn by a 20-year-old Caucasian male.

Figure 3

Note. A self-portrait drawn by a 23-year-old Caucasian non-binary person.

Figure 4

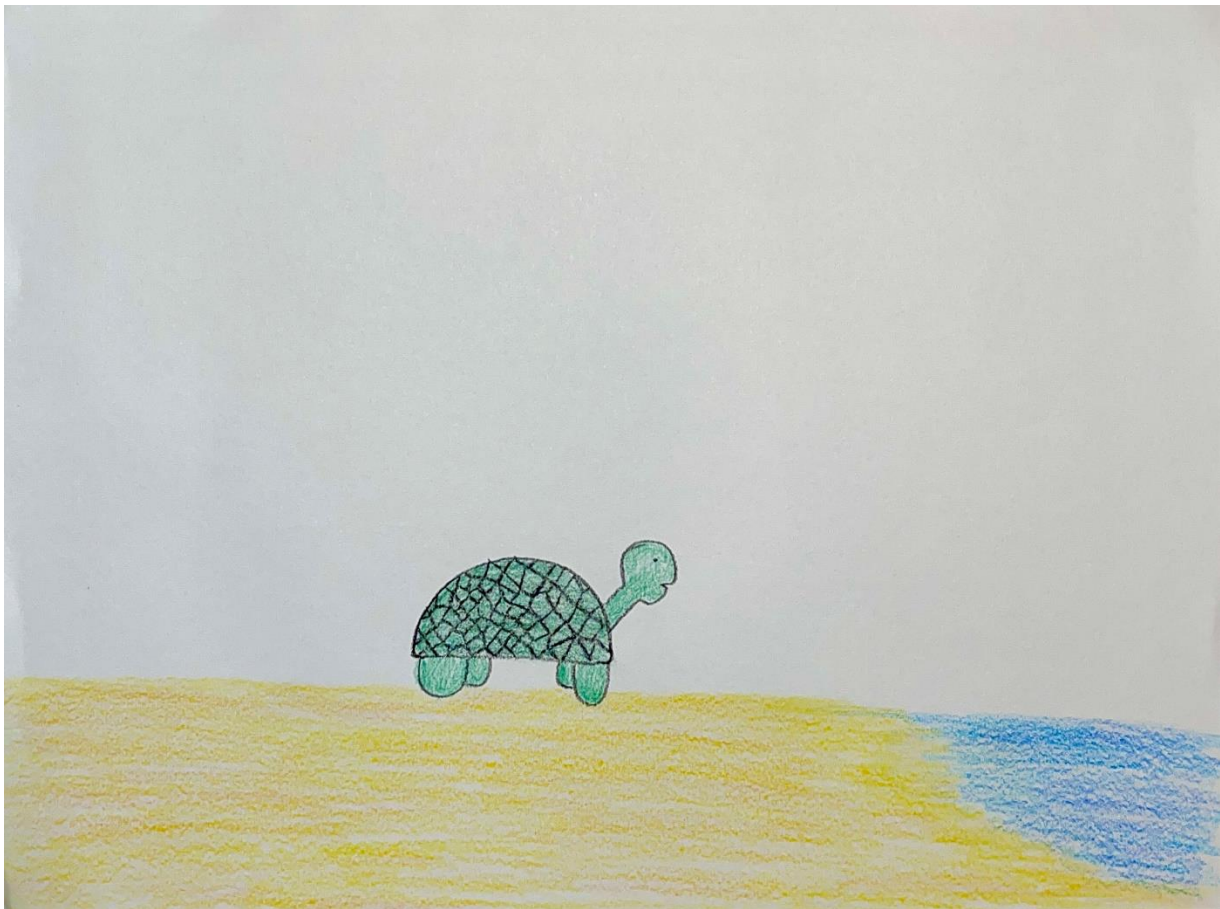
Note. A self-portrait drawn by a 22-year-old Caucasian female.

Figure 5

Note. A frog image drawn by an 18-year-old Black female.

Figure 6

Note. An elephant image drawn by a 20-year-old non-binary person.

Figure 7

Note. A turtle image drawn by a 19-year-old Biracial female.

Figure 8



Note. A self-portrait drawn by a 24-year-old Caucasian female.

Figure 9



Note. A leopard image drawn by an 18-year-old Hispanic gender fluid person.

Figure 10

Note. A self-portrait drawn by a 23-year-old Caucasian female.

Appendix A

Informed Consent Form

This study is being conducted as part of the requirements for the Masters of Arts in Art therapy and Counseling degree at Albertus Magnus College. The goal of this study is to explore the effects of animal imagery. During this study, you will be asked to participate in art making and fill out two questionnaires. Please note that your art-making abilities are not a factor in this study. All information collected will be confidential and the study is expected to take approximately 40-60 minutes in one sitting. To maintain confidentiality, the artwork created during this study will be numbered and your name will not be connected to the work in any way. You will be told at the end of the study the purpose of the information collected.

Potential risks involved with participation in this study may include frustration with art making and possible negative feelings from the questionnaire mentioned above. Participation in this study is completely voluntary, and you are able to withdraw at any point in time without penalty. The benefits of participating include assisting a graduate student in the completion of his thesis requirement, as well as contributing to research on the effects of art therapy. You may also enjoy the art activities. This study has been approved by the Albertus Magnus College Institutional Review Board (IRB).

If you have any known allergies to art materials, please inform the researcher. If you have any questions or concerns about this research, you may contact the following individuals:

Investigator	Psychology Advisor	Art Therapy Advisor
Nicholas Iamele niamele@albertus.edu	Stephen Joy, PhD Sjoy@albertus.edu	Rebecca Arnold, PhD rarnold@albertus.edu

Chair of IRB Joshua Abreu, PhD

By signing this form, I acknowledge that I am 18 years of age or older, understand the study described above, and agree to participate in the aforementioned study.

Print name

Date

Signature

I have received a copy of this form to keep for myself.

Appendix B

Art Release Form

Art Image Release Form: Animal
Imagery and Self-Esteem

The artwork that you create during this study will remain confidential. Your name will not be connected with your artwork. Photographs of the artwork will *only* be taken with your consent for the purposes listed below. Photographs taken of the artwork *will not* contain any identifying information.

I agree to have my artwork photographed without identifying information for the following purpose(s): (Please check all that apply)

- ☐ Educational and training purposes
- ☐ Presentation at a professional conference
- ☐ Publication in a professional journal
- ☐ None of the above

I hereby give consent as noted above for the use of my artwork

Print name

Date

Signature

Please note that if at a later date you choose to withdraw permission for your artwork to be shown as noted above, it may be difficult or impossible to contain images already disseminated in public settings.

I have received a copy of this form to keep for myself.

Appendix C Demographic Form

1. _____ What is your age?

2. Which option best represents your primary ethnic identity?

☐ Black or African American

☐ White (non-Hispanic)

☐ Hispanic/Latinx

☐ Native American or American Indian

☐ Asian/Pacific Islander

☐ Not listed _____

3. Which option best represents your gender identity?

☐ Man

☐ Woman

☐ Transgender female

☐ Transgender male

☐ Gender- fluid

☐ Non-Binary

☐ Prefer not to state

☐ Not listed _____

4. What best describes your art making experience?

- ☐ I participated in art in high school
- ☐ I've taken art classes in college
- ☐ I am an artist and often create art in my free time
- ☐ No experience creating art

Not listed: _____

Appendix D

SSES

This is a questionnaire designed to measure what you are thinking at this moment. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Be sure to answer all of the items, even if you are not certain of the best answer. Again, answer these questions as they are true for you RIGHT NOW.

Each item is scored on a 5-point Likert-type scale (1=not at all, 2= a little bit, 3 = somewhat, 4 =very much, 5 = extremely)

Please circle the value for each item below

- | | | | | | |
|--|---|---|---|---|---|
| 1. I feel confident about my abilities. | 1 | 2 | 3 | 4 | 5 |
| | | | | | |
| 2. I am worried about whether I am regarded as a success or failure. | 1 | 2 | 3 | 4 | 5 |
| | | | | | |
| 3. I feel satisfied with the way my body looks right now. | 1 | 2 | 3 | 4 | 5 |
| | | | | | |
| 4. I feel frustrated or rattled about my performance. | 1 | 2 | 3 | 4 | 5 |
| | | | | | |
| 5. I feel that I am having trouble understanding things that I read. | 1 | 2 | 3 | 4 | 5 |

6. I feel that others respect and admire me. 1 2 3 4 5

7. I am dissatisfied with my weight. 1 2 3 4 5

8. I feel self-conscious. 1 2 3 4 5

9. I feel as smart as others. 1 2 3 4 5

10. I feel displeased with myself. 1 2 3 4 5

11. I feel good about myself. 1 2 3 4 5

12. I am pleased with my appearance right now. 1 2 3 4 5

13. I am worried about what other people think of me. 1 2 3 4 5

14. I feel confident that I understand things. 1 2 3 4 5

15. I feel inferior to others at this moment. 1 2 3 4 5

16. I feel unattractive. 1 2 3 4 5

17. I feel concerned about the impression I am making. 1 2 3 4 5

18. I feel that I have less scholastic ability right now than others. 1 2 3 4 5

19. I feel like I'm not doing well. 1 2 3 4 5

20. I am worried about looking foolish. 1 2 3 4 5

Appendix E

SELF-EVALUATION QUESTIONNAIRESTAI Form Y-1

Please provide the following information:

Name

Date

S

Age

Gender (Circle) M F

T

DIRECTIONS:

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel *right* now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

NOT AT ALL

SOMEWHAT

MODERATELY SO

VERY MUCH SO

1. I feel calm.....

1

2

3

4

2. I feel secure

1

2

3

4

3. I am tense

1

2

3

4

4. I feel strained

1

2

3

4

5. I feel at ease

1

2

3

4

6. I feel upset

1

2

3

4

7. I am presently worrying over possible misfortunes

1

2

3

4

8. I feel satisfied

1

2

3

4

9. I feel frightened

1

2

3

4

10. I feel comfortable

1

2

3

4

11. I feel self-confident.....

1

2

3

4

12. I feel nervous

1

2

3

4

13. I am jittery

1

2

3

4

14. I feel indecisive.....

1

2

3

4

15. I am relaxed

1

2

3

4

16. I feel content

1

2

3

4

17. I am worried

1

2

3

4

18. I feel confused.....

1

2

3

4

19. I feel steady.....

1

2

3

4

20. I feel pleasant.....

1

2

3

4

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STAIP-AD Test Form Y
www.mindgarden.com

Appendix F
Debriefing Form: Animal Imagery
and Self-Esteem

This study's purpose was to test animal imagery as an art therapy intervention for increasing self-esteem levels in college students. Research has suggested that creating

metaphorical images where one's self is projected onto an object (an animal) enables easier expression of both positive and negative connotations of self and elicit less anxiety than traditional portraiture. One questionnaire you were given measures self-esteem level. While the second questionnaire accessed anxiety levels. Participants were randomly divided into two groups. One group was asked to create an animal image that represented them and the other group created traditional self-portraits.

The hypothesis was those college students who used an animal image as a metaphor for the self would have higher self-esteem scores upon completion than those in the self-portrait control group.

If you would like to know the results of this study, please provide your email address to the researchers. Please note that results can only be provided in aggregate.

Thank you for your voluntary participation in this study!